SURFACE MOUNT LED
400 nm, 1206 UV IL PACKAGE

BIVAR

SM1206UV-400-IL

- ♦ **Industry Standard 1206 Package**
- ♦ **RoHS Compliant**
- ♦ **UV Emitting LED**
- ♦ **Water Clear Lens**
- ♦ **Narrow Viewing Angle**
- ♦ **Ideal for Curing, Detection, and Medical Applications**
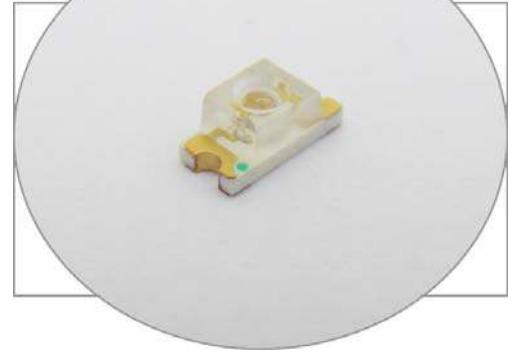
Bivar's Surface Mount 1206 UV Inner Lens LED is offered in a standard 1206 foot print and is ideal for any UV applications. The water clear inner lens provides a narrow viewing angle and maximum radiation power output. The miniature package provides long life and reliability making it ideal for industrial curing, hazard detection, medical applications such as instrument sterilization, fluorescent counterfeit watermark detection, and forensic applications. Bivar SM1206 UV-IL LED is packaged in standard tape and reels for pick and place assemblies.

Part Number	Material	Emitted Color	Peak Wavelength λp(nm) TYP.	Lens Appearance	Luminous Intensity (mW) TYP.	Viewing Angle
SM1206UV-400-IL	InGaN/SiC	ULTRA VIOLET	400 ~ 405	Water Clear	.65	30°

Outline Dimensions

Outline Drawings Notes:
1. All dimensions are in inches [millimeters].
2. Standard tolerance: ±0.010" unless otherwise noted.

Bivar, Inc. — 4 Thomas, Irvine, California 92618, U.S.A.
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Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Power Dissipation	100 mW
Forward Current (DC)	25 mA
Peak Forward Current [1]	100 mA
Reverse Voltage	5 V
Operating Temperature Range	-30 ~ +80°C
Storage Temperature Range	-40 ~ +85°C
Lead Soldering Temperature (3 mm from the base of the epoxy bulb) [2]	260°C

Notes: 1. 10% Duty Cycle, Pulse Width ≤ 0.1 msec.   2. Solder time less than 5 seconds at temperature extreme.

Electrical / Optical Characteristics

T_A = 25°C & I_F = 20 mA unless otherwise noted

Part Number	Forward Voltage (V)[1]			Recommend Forward Current (mA)			Reverse Current (µA)	Dominant Wavelength (nm)[2]			Luminous Intensity Iv (mW)			Viewing Angle 2 Ɵ ½ (deg)
	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
SM1206UV-400-IL	/	3.4	4.2	/	20	/	10	/	/	/	.1	/	1.2	30

Notes: 1. Tolerance of forward voltage : ±0.05V.   2. Tolerance of dominant wavelength : ±1.0nm.

Typical Electrical / Optical Characteristics
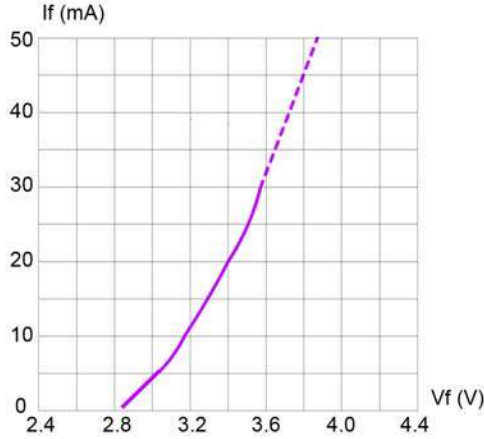
T_A = 25°C unless otherwise noted

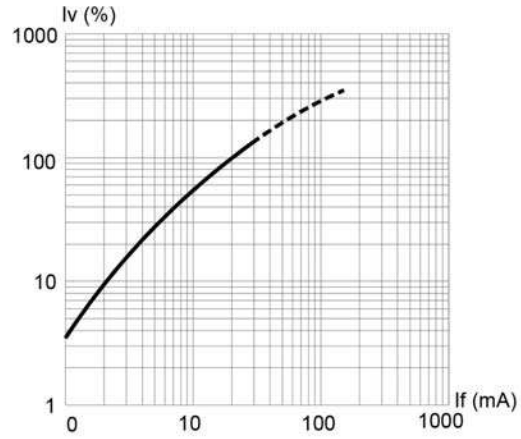Fig. 1 Forward Current vs. Forward Voltage
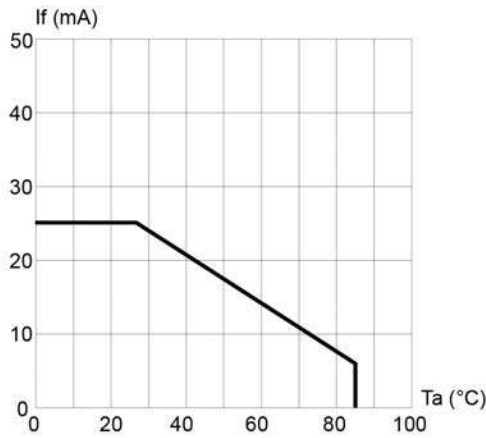
Fig. 2 Relative Luminous Intensity vs. Forward Current

Fig. 3 Forward Current vs. Temperature

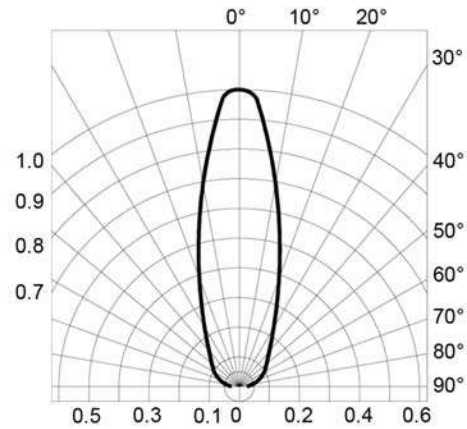Fig. 4 Directivity Radiation Diagram

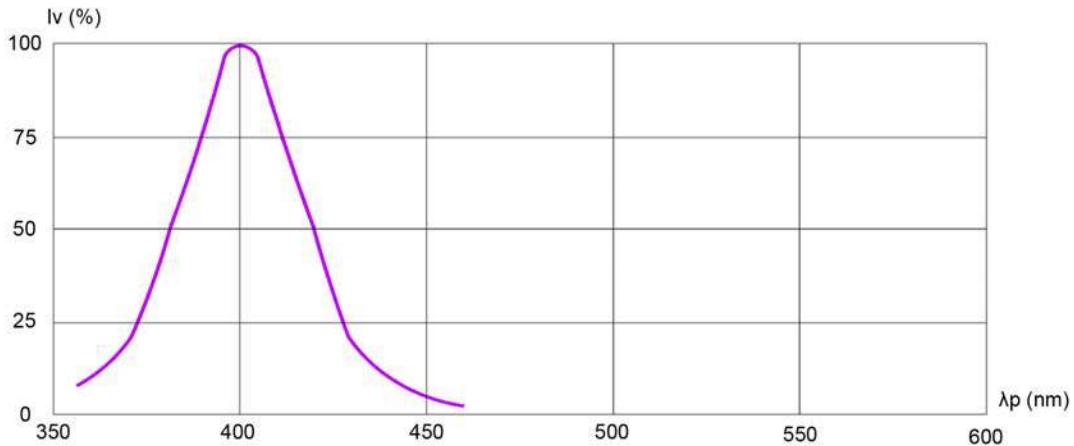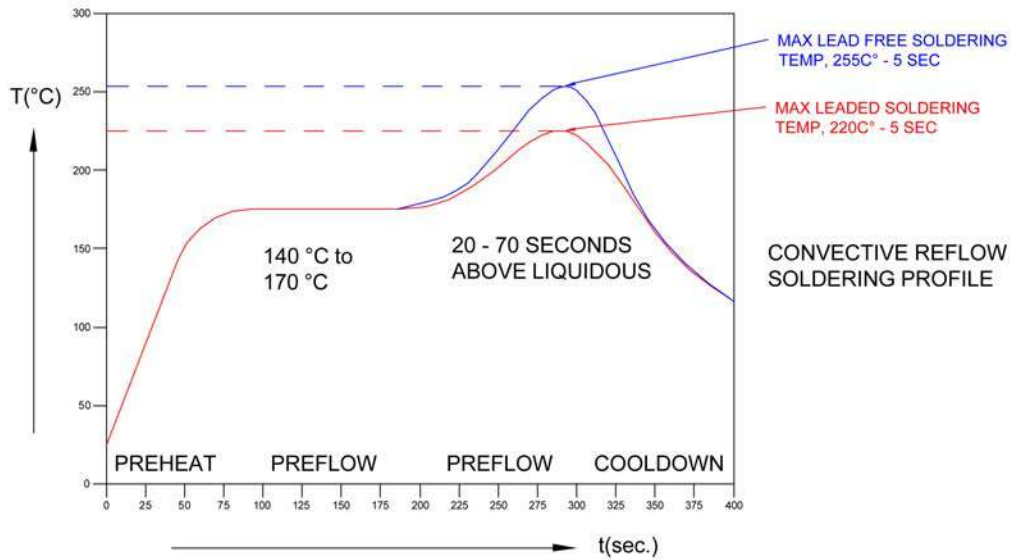Fig. 5 Relative Luminous Intensity vs. Peak Wavelength

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Recommended Soldering Conditions

Recommended Lead Free Wave Soldering Profile	
Preheat Temperature: 100ºC Max.	Peak Temperature: 260ºC Max.
Preheat Time: 20 ~ 50 Seconds	Solder Time Above 217ºC: 5 Seconds Max.
Note: Turn off top heater at preheat to prevent the lamp body directly exposed to the heat source.	

Tape and Reel Dimensions
Note: 3000 pcs/Reel
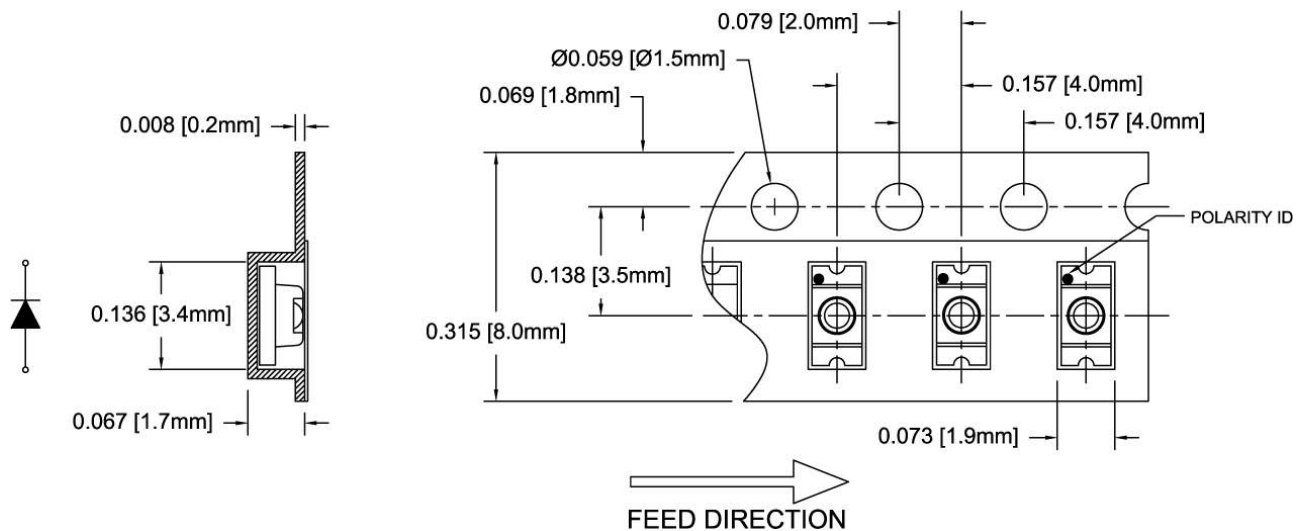
FEED DIRECTION

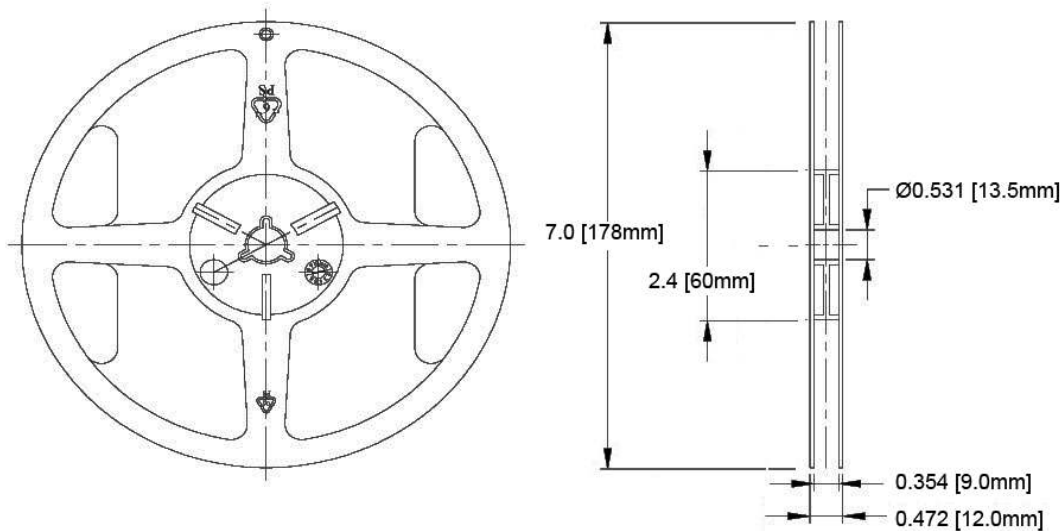**Outline Drawings Notes:**
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Ø0.531 [13.5mm]

7.0 [178mm]

2.4 [60mm]
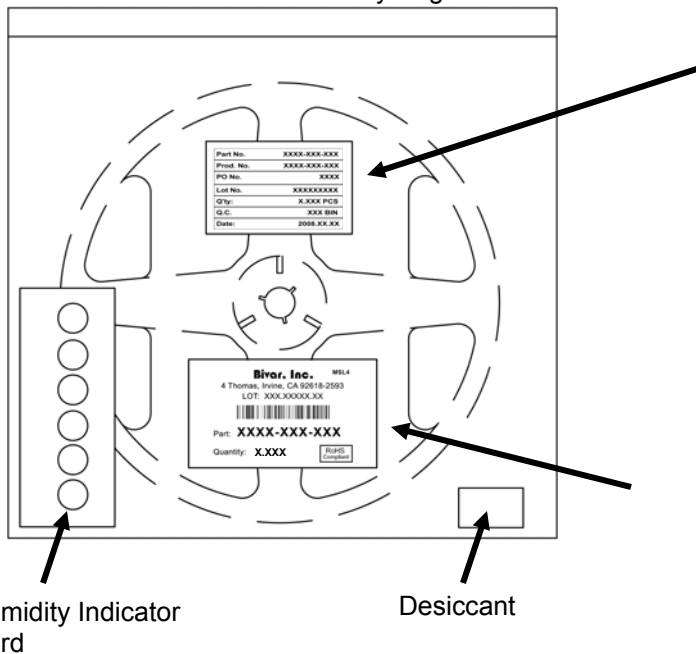
0.354 [9.0mm]

0.472 [12.0mm]

Outline Drawings Notes:
1. All dimensions are in inches [millimeters].
2. Standard tolerance unless otherwise noted: X.XXX ± 0.010"
   X.X ± 0.1"

Packaging and Labeling Plan

Note: 1 Reel / Bag

Vacuum and Heat Sealed
Clear AntiStatic Poly Bag

Part No.	XXXX-XXX-XXX
Prod. No.	XXXX-XXX-XXX
PO No.	XXXX
Lot No.	XXXXXXXXX
Q'ty:	X.XXX PCS
Q.C.	XXX BIN
Date:	2008.XX.XX

Internal Quality Control

Humidity Indicator
Card

Desiccant

Bivar, Inc.   MSL4

4 Thomas, Irvine, CA 92618-2593

LOT: XXX.XXXXX.XX

Part: **XXXX-XXX-XXX**

Quantity: **X.XXX**

RoHS Compliant

Bivar Standard Packaging Label

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